



COPC

**CERTIFICATE OF MAILING**

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below.

On 10/18/09  
(Date)

Julie H. Gamotis  
Julie H. Gamotis

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent of

PEDERSEN et al.

Patent No. 7,597,545

Patent Date: October 6, 2009

Serial No. 10/532,684

Filing Date: April 26, 2005

For: AMPLIFIER ASSEMBLY

**REQUEST FOR CERTIFICATE OF CORRECTION**

To the Director of the Patent and Trademark Office

Sir:

Kindly accept and enter the attached Certificate of Correction for the above-identified patent. Also attached is a copy of the marked-up claim 7.

The change to claim 7 was agreed with Examiner Amene S. Bayou by telephone on June 2, 2009 as follows:

Claim 7, line 2, before "at least one" insert "further comprising".

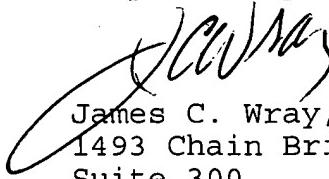
**Certificate**

OCT 14 2009

**of Correction**

Since the error originated in the Patent and Trademark  
Office, no fee is required.

Respectfully,

A handwritten signature in black ink, appearing to read "JCWray".

James C. Wray, Reg. No. 22,693  
1493 Chain Bridge Road  
Suite 300  
McLean, Virginia 22101  
Tel: (703) 442-4800  
Fax: (703) 448-7397

October 8, 2009

**UNITED STATES PATENT AND TRADEMARK OFFICE  
CERTIFICATE OF CORRECTION**Page 1 of 1

PATENT NO. : 7,597,545

APPLICATION NO.: 10/532,684

ISSUE DATE : October 6, 2009

INVENTOR(S) : Harry Emil PEDERSEN and Thorkil Brix PEDERSEN

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

**In the Claims:**

Column 12, line 22 (claim 7, line 1):

~~Before "at least one" insert --further comprising--.~~**MAILING ADDRESS OF SENDER (Please do not use customer number below):**

James C. Wray  
1493 Chain Bridge Road, Suite 300  
McLean, VA 22101

This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

**11**

where the at least one high pressure piston (12) is provided interacting with the low pressure piston (26), and the at least one high pressure piston (12) is co-axially arranged in a high pressure cylinder (13) relative to the low pressure piston; wherein a changeover valve (19) is coaxially arranged in the low pressure cylinder (7), and in connection with the changeover valve (19) there is arranged at least one impulse spring (10,36) coaxially around an impulse rod (24); wherein the at least one impulse spring (10,36) is arranged to be compressed at the movement of the low pressure piston so that at least one spring loaded locking mechanism (3, 35) is instantly released, the locking mechanism being built up of one or more springs (4) that press a locking member (3, 35) against a corresponding lock abutment formed in the changeover valve (19), so that the changeover valve shifts and opens for the drive medium supply to the operational chamber while simultaneously the low pressure piston, via contact with the high pressure piston, is moving the high pressure piston towards the high pressure outlet (15), whereby the impulse rod (24) via the at least one impulse spring (10,36) and mechanical stops (8,9,22,23,25) in an end position of the low pressure piston releases the locking mechanism (3, 35) whereby the changeover valve shifts and the drive medium, via a low pressure connection (6) via a check valve (11), presses the high and low pressure pistons back.

2. Pressure amplifier according to claim 1, characterised in that the locking mechanism is built up in at least one boring provided radially in the low pressure cylinder (7), and that in the boring a ball or a wedge (35) has been provided, the ball or wedge interacting with a spring (4) so that the ball or wedge (35) are pressed down into one of two recesses (34) with same dimensions as the part of the ball or wedge (35) provided in a cylindrical surface of the changeover valve (19).

3. Pressure amplifier according to claim 1, characterised in that the locking mechanism is built up in an annular, flat, round groove (45) provided at the inner side of the low pressure cylinder (7), so that at least two U-shaped locking members (3) are arranged in the groove, the locking members (3) being chamfered at the ends (17), that a number of radially oriented borings (43) have been provided, corresponding to the number of locking members (3), and that in each boring (43) there is arranged a spring (4) pressing the locking members (3) towards the centre line (44) of the cylinder so that the chamfered ends (17) of the locking members co-operate hold a locking element (18) arranged in the valve in one of two positions on respective chamfered sides (17) of the locking members (3).

**12**

4. Pressure amplifier according to claim 3, characterised in that the pressure amplifier is double-acting so that the impulse rod (24) is interacting with two high pressure pistons (12) arranged at opposite sides of the operational chamber (29), and that furthermore two high pressure outlets (15) are provided.

5. Pressure amplifier according to claim 1, characterised in that the high pressure piston (12) and impulse rod (24), respectively, are loosely connected to the low pressure piston (26) by means of flanges that are provided at one end of the high pressure piston and the impulse rod, respectively, the flanges (46) largely fitting in corresponding cavities provided in the end faces of the low pressure piston so that the flanges are loosely held by means of locking rings (8).

10 6. Pressure amplifier according to claim 1, characterised in that the high and low pressure pistons, the high and low pressure cylinders, the check valve and one or more additional check valves, the low pressure connection and a high pressure connection with associated springs and locking mechanisms are arranged coaxially and symmetrically around a common centre line (44).

15 7. Pressure amplifier according to claim 6, *further comprising* at least one boring (40) and parallel axial connections (6,16,40,41) and annular channels (30,31,32,33,34,39) with interconnection established by radial milling from inside the at least one boring.

20 8. Pressure amplifier according to claim 1, characterised in that one or two of the pistons are used for driving a pump fitted theron for pumping another medium than the drive medium, or for driving other oscillating apparatuses.

25 9. Pressure amplifier according to claim 1, characterised in that externally of the changeover valve, an annular turning is provided with a diameter less than the outer diameter of the changeover valve and a length in longitudinal direction of the pressure amplifier, the length being substantially less than the length of the changeover valve, and that at least two holes are provided in the changeover valve radially from the interior of the changeover valve to the outside of the changeover valve, and that one hole is provided coinciding with the annular turning, and that the other hole is provided outside the annular turning.

30 10. Pressure amplifier according to claim 4, wherein the two high pressure outlets are brought together to a common outlet.

\* \* \* \* \*